

## A Further New Species of the *Phasis wallengrenii* (Trimen) complex (Lepidoptera : Lycaenidae)

By C. G. C. DICKSON

When discussing the *Phasis wallengrenii* complex recently (Entomologist's Record, 79: 267-270, Nov., 1967) the present writer treated as a new species, under the name of *Phasis argyroplaga*, the main Karroo member of the group and mentioned the possibility of this complex also containing other new taxa—a view which was shared by Mr G. E. Tite.

The butterfly which is now dealt with in this paper differs in wing-shape from both *Phasis wallengrenii* and *Ph. argyroplaga* and although having the silvery markings of the hindwing underside thickened as in the latter species, it can be distinguished readily by certain differences in these markings. While there are one or two other taxa in this group which will require further investigation when more material is available, it is felt that the present insect clearly constitutes another new species and warrants description as such. This butterfly has a wide distribution, occurring as it does in the N.W. Cape as well as in the karroid or semi-karroid regions of the Eastern Cape—individual specimens from both regions sometimes matching one another closely. Furthermore, there is positive overlapping with *argyroplaga* in some localities, with each insect retaining its identity completely and thus appearing to confirm fully the specific difference between the two taxa.

*Phasis macmasteri* spec. nov.

*Male.* Forewing with the distal margin not or at the most only slightly concave below vein 4; hindwing with the distal and hindmargins forming a wider angle on an average than in *argyroplaga* and with the ana-angular projection much shorter. (N.B.: in the figure of the male holotype of *argyroplaga* the length of the projection is not apparent owing to its partial loss in each hindwing of the specimen concerned).

*Upperside.*

*Forewing.* Relative proportion of the tawny-orange to black areas greater than in *argyroplaga*, with the orange closer to costa and less restricted towards the hind margin and the tornus. (Specimens do, however, occur in which the greater part of area Ia is suffused with dark colouring).

*Hindwing.* Portion of wing between base and the large black apical area more obscured by dark scaling than in *argyroplaga*, and the black apical patch itself extending further basad (and in some paratypes only slightly separated by some orange suffusion from the dark scaling at the wing base). No dark streak from or near lower inner edge of apical patch in holotype or other specimens from the type-locality which have been examined, but in some of these specimens an intervening scattering of dark scales represents, feebly, the streak which occurs in some examples of *argyroplaga*.

*Underside.*

*Forewing.* Except to a slight extent near base and towards apex, virtually no scattered dark scaling is present near or at edge of costa. The silvery-white spots in and at cell-end without black edging or less distinctly edged with black than in *argyroplaga*; those in areas 2 and 3 reduced in size and that in 2 often absent (as in the holotype). About

distal two-thirds of costal area narrowly dull salmon-pink and distal marginal area, down to vein 1, more broadly and distinctly so.

*Hindwing.* Background of less uniform tone than in *argyroplaga*—with dull salmon-pink streaks occurring above and below the cell and the same colour present submarginally below vein 3, down to the anal-angle and parallel with but separated from the inner margin; while most of the wing is edged with this colour, which broadens towards the upper angle of the wing as well as at the anal angle. In some paratypes this colouring is deeper and duller than in the holotype and in others more of a putty colour, this also applying to the correspondingly coloured parts of the forewing.

The silvery-white markings shaped differently, in the case of some of them, from the corresponding ones in *argyroplaga* and a few of them coalescing or showing more tendency to coalesce—the general impression being that of a rather less intricate pattern. The small more outwardly placed marking in the cell is usually so enlarged as to coalesce with the large irregularly shaped marking beyond the end of the cell, while the marking a little beyond and above the latter which forms a streak in area 5 in *argyroplaga*, more often occurs as a small thick marking in the present species and either coalesces with, or is not widely separated from a small marking below it—the combined effect being rather that of a figure J (with the “tail” reversed in one of the wings).

Length of forewing: 14.5–16.5 mm. (16 mm., in holotype). (One abnormally small male has a forewing length of under 12 mm.).

#### *Female.*

Hindwing with the anal-angular projection less produced than is usual in the female of *argyroplaga* (and generally but very slightly produced, with the effect partly due to the wing-margin between veins 1b and 2 being a little excavate).

#### *Upperside.*

Ground colour a little lighter and more ochreous than in the male, as is usual in members of this group.

*Forewing.* Dark patch about three-fifths along costa from base with its edges which adjoin orange area always more or less blurred (the edges better defined as a rule in the two allied species); the patch only consisting of a little diffuse dark scaling, in at least one of the paratypes.

*Hindwing.* No dark streak from the large apical patch (which, inferiorly, reaches vein 4) to near anal-angle, although generally as in the allotype, some intervening scattered dark scaling.

#### *Underside.*

*Forewing.* Essentially as in male, allowing for the differently shaped (evenly curved) termen, but the silvery-white markings reduced in size relative to the greater size of the female butterfly. Costal silvery-white from base far less developed than in the male and less so than in the female of *argyroplaga*.

*Hindwing.* As in the male generally but the silvery-white markings as a whole relatively reduced somewhat in size; the discal series more in the form of a sinuate chain, than in the male. The small more distally placed spot in the cell is normally not fused with the marking beyond the end of the cell. In this sex also the silvery-white marking is of less intricate formation than in the same sex of *wallengrenii* and *argyroplaga*.

Length of forewing: 16.5—20 mm. (19.5 mm., in allotype).

Body and ancillary parts in both sexes marked and coloured very similarly to the same parts in the allied species.

♂ Holotype, EASTERN CAPE PROVINCE: Vlekpoort, near Hofmeyr, 23.x.1967 (J. C. McMaster); British Museum Reg. No. Rh. 17023.

♀ Allotype, data as holotype; British Museum Reg. No. 17024.

Paratypes presented to British Museum (Natural History), data as holotype, 1♂, 1♀.

Paratypes in the author's collection, E. CAPE PROVINCE: between Port Elizabeth and Uitenhage, 4.i.1950 (C.G.C.D.), 1♂; data as holotype, 3♂♂, 1♀.

Paratypes in Coll. J. C. McMaster, E. CAPE PROVINCE: Eastpoort, nr. Cookhouse, 16.x.1966 (J. C. McM.), 1♂; data as holotype, 5♂♂, 4♀♀.

Paratype in Coll. N. A. Brauer, E. CAPE PROVINCE: Haasfonteinmond, Queenstown Dist., 24.xi.1965 (N.A.B.), 1♂.

Paratypes in Coll. Transvaal Museum, E. CAPE PROVINCE: Willowmore, 15.xi.1912 (Dr. Brauns), 3♂♂; Haasfonteinmond, Queenstown District, 13.xi.1965 (N. A. Brauer), 1♀; as holotype, 1♂, 1♀.

The comprehensive series of specimens from the type-locality is remarkably uniform in general appearance and varies only in unimportant detail. The Eastpoort male shows some slight increase in the dark areas of the upperside and this is apparent too in the Willowmore examples, with the increase quite marked in one of them—and in all three with the orange portions of the upperside more or less obscured in places by dark scaling. In the male from between Port Elizabeth and Uitenhage the orange area of the forewing is noticeably reduced and the hindwing is darkened over more than half the surface from the costa downwards, with the orange forming rays between the well darkened veins below this portion—but the darkest Willowmore example is nearly as darkly marked. Mr. Brauer's Queenstown male (the unusually small specimen which has been mentioned) has the dark portions of the upperside well developed, but part of the silvery-white marking of the underside incompletely developed. In all specimens the undersides are basically the same, with the degree of variation of a secondary nature only. In two of the female paratypes the pinkish colouring of the hindwing underside is very extensive and prominent.

Attention was drawn to this insect and the features which distinguish it so readily from *Ph. argyroplaga*, by Mr. McMaster after the capture of the Eastpoort specimen in 1966, and he was anxious that it should be described when he had obtained sufficient material for this purpose. Mr. N. A. Brauer found it in the previous year in the Queenstown district, and realised that it was quite distinct from other specimens of the group which were known to him; and he subsequently sent an example of it to the Transvaal Museum. The butterfly had been known to the late Mr. Gowan C. Clark for very many years and he appreciated the fact of there being two distinct insects of this group in the Eastern Cape. Mr. K. M. Pennington came across the species in Little Namaqualand in 1946 and he was particularly impressed by the difference which was apparent in the first female which he captured there. Specimens taken by Dr. Bernard Kettlewell at the Orange Mouth in 1952, and now in the British Museum (N.H.), appear to be the same as Mr. Pennington's 1946 examples.

The butterfly was found by the writer between Port Elizabeth and Uitenhage (on 4th January, 1950) on rough open ground adjoining the well developed and comparatively tall type of karroid vegetation which is so characteristic of that area\*.

Mr. McMaster states in a letter that the butterfly seems to be fairly plentiful where it occurs, appearing here and there in the Karroo scrub, with a tendency to keep to flat open country. It settles on the ground, making short circular flights when disturbed, and can often be found on flowers.

Sincere thanks are due to Mr. G. E. Tite for his kindness in checking the manuscript before its publication; while Dr. L. Vári has been good enough to make available for study the specimens from the Transvaal Museum Collection.

\*A female specimen which was captured to the west of Calvinia (Western Cape Province) on 15th December 1951, has also been found to answer to this species.

"Blencathra," Cambridge Avenue, St. Michael's Estate, Cape Town.

## New Forest Mercury Vapour Light Records for 1967

By L. W. SIGGS

The numbers of specimens recorded in the Minstead M.V. trap were as follows:—

	Nights	Total	Average
March	30	1826	61
April	30	2084	69
May	30	915	30
June	28	3508	125
July	25	5650	226
August	31	5432	175
September	30	2710	90
October	31	1396	45
November	30	704	23
Total	265	24,225	91

This is the lowest daily average over the year since records began in 1962.

The following additions to the Minstead list are recorded:—

*Heterogenea asella* Schiff.  
*Shrankia taenialis* Hübn.  
*Eupithecia indigata* Hübn.  
*Operophtera jagata* Scharf.

As a result of examination of genitalia, I can add—

*Hydraecia paludis* Tutt taken in 1963 and 1965  
*Oporinia christyi* Prout taken in 1959.

The number of species of macrolepidoptera recorded in 1967 was 357, a more than average figure.

Species which put in an appearance this year but are not regular visitors were *Tethea duplaris* L., *Lasiocampus quercus* L., *Hepialus fusconebulosa* Deg., *Graphiphora augur* Fab., *Amathes agathina* Dup. (it